

BIOGRAPHY

Chowen C. Wey, Ph. D
Army Senior Fellow
Deputy Under Secretary of the Army



Dr. Chowen C. Wey was selected into the Deputy Under Secretary of the Army's new Army Senior Fellows program in July 2007 based on her outstanding career accomplishments, education, and potential to compete for future Army Senior Executive Service (SES) positions.

Before joining the Senior Fellows Program, Dr. Wey served in many key positions at the NASA Glenn Research Center (GRC) while a member of the Army Research Laboratory (ARL). In her 21 years service at GRC, she worked in a wide variety of lead positions in management and research. Dr. Wey envisioned and successfully advocated the need to study aircraft engine particulate emissions to NASA, and in turn developed projects to address all aspects of the modeling and measurement of particulate emissions and evaluation of their impact. She built and led diverse teams comprised of international scientists and engineers from multiple sectors of the aerospace community to execute her projects. Dr. Wey led the development of a comprehensive, unique emissions data base for commercial and military gas turbine engines that is recognized throughout the world aviation community for its uniqueness and contribution to an increased understanding of the emissions challenges associated with high performance turbine engine systems.

With a wide range of expertise including atmospheric sciences, combustion research, emissions reduction science and engineering, international environmental policies, and project management, Dr. Wey has represented NASA and the Army in many international teams. She is a member of the National Academies' Transportation Board AV030 Committee that works on aviation's sustainability and environmental issues. She was a member of the International Civil Aviation Organization's Working Group 3, which dealt with technical issues regarding aviation emissions for many years. She was also one of the Leads of the US Particulate Matter Roadmap. Dr. Wey is a key member of the Society of Automotive Engineers D-31 Committee that works on the standard practices of aircraft engine emissions measurement, and the Chair of its Gas Instrumentation Subcommittee. She was one of the lead authors of the Intergovernmental Panel on Climate Change Special Report "Aviation and the Global Atmosphere" sponsored by United Nations.

At earlier stages of Dr. Wey's career as a researcher, she produced excellent and unique experimental results in engine emissions tests, provided critical data to characterize combustor liner and turbine transition duct materials, developed a methodology to identify and quantify hydrocarbon species sampled directly from combustion test rig, and developed an image processing and analysis system to acquire and analyze images of flow structures.

Dr. Wey earned her Ph.D. and M.S. degrees in Atmospheric Sciences from the Georgia Institute of Technology, Atlanta, Georgia; and her B.S. degree in Atmospheric Physics from National Central University, Chung-Li, Taiwan. She has taken many technical and management training courses throughout her career.